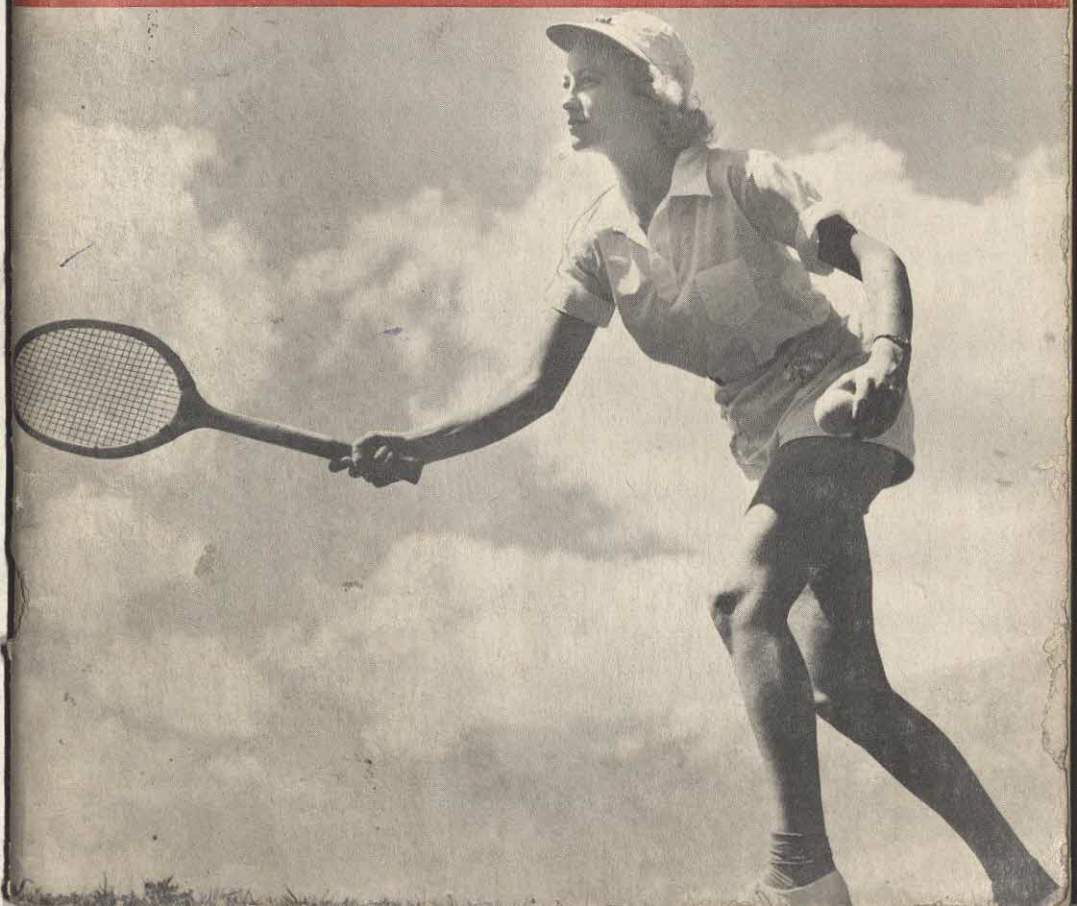
SRA Guidance Series

493

You and your health

by

J. ROSWELL GALLAGHER, M.D.



SRA Guidance Series

How healthy are you?

Good health is **wonderful!** You get more fun out of everything you do—your work, your school, your play. What's more, if you feel better, you **do** better—you're likely to be more successful in your activities.

Some people, of course, are healthier than others. Whatever your physical condition, you probably feel that it could be improved, that you could be doing something more about it.

There are two important parts of any health-improvement program. First, you need information—about your growth and development, about food and eating habits, about physical fitness, about disease, about accidents and how to avoid them, and about common health problems.

Second, it is important to examine your attitude toward your health—how you feel about it and what you do about it.

This booklet will give you these facts and help you to become a healthier, more effective individual.

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You and your health

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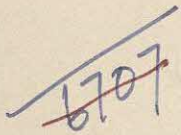

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1

How to be healthy

IF you asked a dozen of your friends what is important in their lives you'd probably get a dozen different answers, but they'd *all* agree on one point: the importance of good health. This one possession can make all the difference between just living from day to day and facing life with real enthusiasm. It's good health that makes it fun to wake up in the morning feeling ready and able to cope with the jobs ahead—school and chores, football practice, the swimming meet, and peddling papers.

What's more, good health affects your success in school, on the job, and in your social life. We all are able to produce more effectively and turn out a better performance when we feel well, when we have no nagging aches or pains.

But the questions are: How can you keep in good health? How can you improve your health? How can you prevent illness? How can you help yourself get well if you do become ill? You're probably thinking, *That's a doctor's job.* It is true that the doctor has a great deal of responsibility in treating you when you're ill and also for helping you to *prevent illness,* but you can make the doctor's job more effective and improve your health if you learn to help yourself.

To be able to do this, there are two important things you should have: *information* and a *realistic, objective attitude* toward your health.

Information, please

What information should you have? Since most of you have not yet reached maturity, you need to know something about your growth and development. You will also want information about nutrition and exercise, and the part they play in keeping you physically fit. It's important, too, to find out what diseases can be prevented, or at least controlled, and since accidents are the most frequent cause of death in young people, you

Good health helps you start the day with enthusiasm and energy for jobs ahead.

should know some of the ways of preventing them. Finally, it's helpful to know about the part medical examinations can play in keeping you healthy.

Your attitudes

This booklet will give you some of these facts. What you *learn* about health, however, is only one side of the story. Your *attitude* toward health is even more important. You need facts to help you live more effectively, but you also must know how to use them.

We all know someone like Joe, who pays no attention to his injuries, cuts, pains, or sore throats, because he "never gets sick." Joe prides himself on his courage, but actually he's inviting trouble. Individuals like Joe often act this way because they don't want to be thought sissies. They fail to realize that by taking reasonable precautions they are being adult and using common sense. A professional athlete, whose ability to earn a living is dependent upon his being in excellent health, does everything possible to stay well. No one ever thinks of him as being a sissy.

You've probably also known someone like Joan, who goes to the other extreme and worries too much about her health. If she gets scratched, she's sure of getting lockjaw. If she feels a cold coming on, she is sure she's getting pneumonia. These people are known as hypochondriacs; they're always worrying about their health. Such an attitude is annoying

By going into a tailspin at every ache and pain you can worry yourself into illness.

to others, and it can cause real harm to the individual. Worry itself can cause illness. You can literally worry yourself into being sick; anxiety about your digestion and the possibility that you may have an ulcer can produce one. The runner who becomes violently sick to his stomach before a big race has only reacted to worry; there's nothing wrong with his stomach except what worry has temporarily produced.

In recent years doctors have emphasized the relationship between your emotional well-being and your physical health. What affects your mind also affects your body. How you *feel* about your health is an important factor in keeping you healthy. If you'll keep an informed and positive attitude toward your health, you'll have taken a big step toward staying well.

If you have an ache or a pain, don't start worrying about whether it's serious. Get the facts about it. Then, when you have the information and advice you need, be sure to follow it. It doesn't do much good to learn that a puncture wound (from a cleat or rusty nail or spiked shoe) demands a preventive inoculation against tetanus (lockjaw) unless you follow up by getting that inoculation. Then, unless you act, you'll not only worry—for now you know you have something *real* to worry about—but you may also get the disease. For your peace of mind and body, don't just worry about an ailment—get the facts on what may or may not be wrong, and then act on them.

When illness strikes

Unfortunately, despite your best efforts, you will not always be free of illness, escape injury, or have perfect health. You may be too fat in spite of a strict diet. You may have lost a leg in an unpreventable accident. Your hearing and your vision may be far below normal. Whether you have serious misfortunes or merely annoying ones, it is your attitude that is all-important. It will determine how seriously any illness or injury will affect your life.

Be interested in your health—but don't let illness or handicaps push you around. What health you have is an asset—try to improve it. If you have a handicap—whether it is a temporary or a permanent one—adjust to it, live with it as best you can.

Don't use your health as an excuse

Stop for a moment and take a good look at your attitude toward health. Ask yourself these questions:

Have I ever had a "convenient" headache?

How often do I have colds? How "convenient" are they?

Am I particularly afraid of being ill?

People often use minor ailments as excuses for getting out of unpleasant or difficult situations. We're all guilty of this at times, although we're not always aware of just what we're doing. You've heard about the girl who "happened" to get a crippling stomach-ache on the day of an exam that she was afraid of failing, or the boy who got an incapacitating backache on the evening of a dance to which he didn't want to go.

Because we're all afraid of facing certain situations, our bodies sometimes come to the rescue by providing us with an excuse for not meeting those situations. If John has a backache, he obviously can't be expected to go to that dance, and he'll be able to avoid embarrassment. If Jean has a stomach-ache, no one can blame her for staying home from school and missing the much-feared exam.

Unconsciously, we are apt to use these devices now and then, and they seem fairly harmless to us at the time. The danger lies in making a *habit* of these "convenient" aches and pains. If we give in to them, it's surprising how often they will recur. So next time you get a "convenient" ailment, look at yourself and at the situation and try to find out what it really is that's troubling you. Isolate the real problem. Is it your stomach, or is it that exam, that makes you feel sick? Then go to work to solve that problem. You'll be surprised at how quickly the stomach-ache, the headache, or the backache will disappear, and you'll feel much better, both physically and emotionally, when you've conquered that fear, when you've taken that exam or gone to that dance.

II

Your growth and development

I wish I were taller.

Why can't I be shorter? I just tower over everyone.

I'm too fat.

I can't seem to put on any weight.

DO any of these complaints sound familiar? Problems of height, weight, and general physical development are of real concern to many young people, particularly if they're shorter or taller, thinner or heavier than most of their friends and classmates. Yet in any high school classroom, you'll find students of many different sizes and shapes. Many of them wonder whether they are "normal" in their development.

What is normal?

Let's consider an average English class of freshmen at Eastern High. If you were to measure them, you would probably find heights ranging from Arlene, who is only four feet, eight inches tall, to Tom, who is six feet tall. However, the *average* height of the whole class might be about five feet, four inches. If you were to count the number of "average" students, though, you wouldn't find many who were five feet, four inches tall. They would range all the way from Arlene to Tom in height. The very few who were just five feet, four obviously wouldn't be the only *normal* ones!

There is usually a normal range of height for any particular age group, but you can be above or below the limits of your group and still be growing in a way that is perfectly normal for you. You may want to be at the average height for your age group, but you're *normal* whether you are taller or shorter.

Everyone grows in his own way, at his own rate. Your way may be different from many other individuals of your age, but your way is neither

In any high school group you'll see students who are short and tall, heavy and thin.

better nor worse than theirs. Real abnormalities in growth are rare, but *variations* from the average way of growth and development are common.

What is true of height is true of other kinds of growth. For example, Arlene may weigh only 80 pounds, while Tom may tip the scales at 180. On the other hand, Bill might weigh about 130 pounds. Again, Bill's is not the "ideal" weight, and anyone weighing more or less is not abnormal.

No two individuals grow at exactly the same rate, in exactly the same way. Check up on several of the attractive, self-assured people around you. You'll discover that they don't all fit the same pattern of height and weight, yet there's nothing *abnormal* about them.

Differences in the way people mature vary just as widely. Mary may have a "cover girl" figure at sixteen, while Susan still looks "shapeless." Jim may need to shave years before Fred. These differences don't mean a thing unless the individuals worry too much about them and begin to be oversensitive. Susan will catch up in time at her own rate. She may have to wait a while, but she'll catch up to Mary before very long. In a few years Fred will be complaining because he has to shave every day.

These variations in type and rate of growth are only more evidence of the fact that people differ from one another. We're all different; we each have our own individual ways. If you are showing signs of maturing, even though slowly, you can be sure that you're all right.

Why the variations?

You've probably seen charts and graphs showing the kinds of averages and ranges we have just discussed. Perhaps you've checked yourself on them and found results that worry you. Don't be too concerned. Remember that these charts and this sort of comparing do not take into account *your own* special heredity and constitution—the characteristics you've inherited from your family and race, and the way in which your own glands choose to act. These are the main factors affecting growth, and they are never the same for two people.

You may be descended from a race of particularly tall people. Northern Europeans, for example, are taller on the whole than people from the southern countries. This inheritance will have its effect on you. Or you may come from a family of short people: in this case the chances are that you too will be short. Even within a "short" family, however, there will be variations, because each member has a different glandular system.

Growth is not an orderly, predictable business. The different rates at which young people approach adulthood have been compared to various types of transportation, all headed toward the same destination. Some people seem to progress as though they were going on a fast airliner. Others move less rapidly, as if traveling by railroad train. Still others

If you come from a family of short people, chances are that you will be short too.

move steadily, but more slowly—by steamship, you might say. A few move irregularly, by fits and starts, like a hitchhiker. Some progress very slowly and discouragingly, like a man trudging across the continent on foot.

The important fact is that all of these travelers get to their destination. Meanwhile, it won't hasten or change the process to worry about being "average" on a chart. During your growth period, you ought to be gaining some weight from year to year. Some of you will regularly gain a few pounds a year; others will gain little for several years and then make a tremendous spurt. *The best weight and growth chart for you is your own.* If you're growing a little, gaining a little, maturing a little, don't worry.

As we mentioned before, there are rare instances of real growth disturbances. Sometimes, due to a serious abnormality in the glandular functions, an individual may become excessively tall or fat, or he may be extraordinarily slow to mature. Others may become much too mature at an early age. These things happen very infrequently, but if either you or your parents become concerned about your growth, by all means consult your doctor. It is a perfectly legitimate problem to bring to him. You will probably find that your growing rate is merely a little unusual. It will reassure you to know that you are not abnormal, and it will spare you a great deal of worry.

What can you do?

Because your growth and development are affected to a great extent by your heredity and your glandular system, they are largely beyond your control. However, there are some things you can control. Your general health can affect your growth. A good, nutritious diet, the avoidance of serious illnesses, and the development of physical fitness are all things you can do something about. These will be discussed later on in the booklet.

Above all, *don't worry* about your size or state of maturity. Make the most of those good physical features you have, correct any of your poor ones if you can. Then forget about how you look. Your contribution to the world isn't going to be governed by your size or appearance.

III

Eating for fun and health

THE food you eat has an important influence on how you grow and develop.

When you order a coke and a banana split for lunch, you are thinking mainly of what you *enjoy* eating. That's what most of us do, and it's a big relief when we get away from commands to "Eat your spinach," and can order what we please.

It's only natural to want to enjoy what you eat. Enjoyment helps you get the most from your food, but your body would soon rebel against a steady diet of cokes and banana splits. The body is an extremely complicated "furnace" which must be fed the right amount and combination of "fuels" for the work you expect it to do. Most foods contain several kinds of "fuel," but no one or two foods alone can give your body the balanced mixture it needs.

You may not get a specific illness from lopsided eating, but you do pay a price.

If you are overweight or underweight. . .

If your skin is unattractive. . .

If you lack pep or endurance. . .

If you are irritable and nervous. . .

you probably need to take a look at your eating habits, for you want to do more than just "eat to stay alive." You want to feel your best, and have the energy to really enjoy your work and play.

What food does for you

The foods you eat must do three things:

1. Help you grow
2. Supply the materials your various organs (liver, spleen, thyroid, etc.) need to maintain themselves

3. Provide you with the energy you need for your activities

In order to perform these functions, the foods you eat must contain certain basic substances. The diets of all peoples who thrive, whether they include seal blubber, rice, or black bread as the staple item, are certain to contain the basic substances that are discussed below.

Protein

The word "protein" comes from the Greek and means "I stand first." It is well named, for we cannot live without it—a fact sometimes overlooked these days when vitamins get all the publicity.

Protein is used in building new cells, the basic unit of which all our body tissues—organs, blood, bone, muscle—are composed. All cells, regardless of their function, must have the chemical elements combined in protein: nitrogen, carbon, hydrogen, oxygen, and various minerals such as sulphur and iron. Meat, fish, eggs, milk, and cheese furnish large amounts of protein.

Carbohydrates

Carbohydrates are another source of energy. Although protein provides the same *amount* of energy as carbohydrates, it doesn't do it as efficiently. It requires more energy to digest proteins than to digest carbo-

Your diet may be of steak or seal blubber but must contain certain basic substances.

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hydrates. The amount of carbohydrates you need depends on your age, how active you are, and on your weight.

Carbohydrates exist in foods as starches and sugars. Potatoes, bread, cereals, sugar, and vegetables are good sources of carbohydrates. Remember, though, that most foods contain *many* elements—enriched bread and potatoes aren't just carbohydrates; they also furnish you with protein and vitamins.

Fat

Fat is also a good source of energy. After digestion, it is either used up to provide energy, or is stored away to be used later when your body needs it. Fat yields almost twice as much energy as the same amount of either protein or carbohydrate. This is why fat is especially important to people who live in cold countries and who need to "burn" extra food just to keep warm. The amount of fat you need depends on how much carbohydrate you eat, how much energy you need, and whether you want to gain or lose weight.

Lard, butter, cream, bacon, vegetable oils, and nuts all have a high fat content. Some fish, such as mackerel and salmon, and most meats are good sources of fat.

How much fat you need depends partly on whether you want to gain or lose weight.

The minerals

Calcium and phosphorus are important for your bones, teeth, blood, and nervous system. Milk, cheese, leafy vegetables, beans, peas, and molasses are good sources of these minerals.

Because they contain the iron essential to your blood, foods like liver, chard, lima beans, peas, spinach, apricots, peaches, molasses, and eggs should be included in your diet.

Iodine

Your thyroid gland—which influences growth—needs iodine for its proper development. Many people get enough iodine without ever giving it a thought, but if you live far from the seacoast in an area where iodine is lacking in the soil and water, "goiter" (an enlargement of the thyroid gland) may be prevalent, and you will have to be sure that iodine is added to your diet. You should do this by using "iodized" salt.

Salt

Common salt is very important to your well-being. Under ordinary conditions, you will get enough from your food and from the extra salt which you sprinkle on it. However, when it is very hot, or if you exercise very strenuously, you may need more salt than usual. This is because you lose a great deal of salt when you perspire. Under such conditions, in order to avoid "heat cramps" and to keep the salt content of your body at a proper level, you should take extra salt. You can add more to your food, or you can take a "salt pill," which contains about a gram of salt.

Vitamins

As long ago as 1757, English sailors plagued with scurvy discovered that they could prevent it by eating limes. This discovery started a new train of investigation for medical scientists. They already knew a great deal about the chemical content of food, but it began to look as if there were other substances, each with a specific purpose, present in some foods but not in others. These substances were "vitamins."

The most important vitamins are listed in the chart on page 16, together with the best food sources for each and why each one is important.

The manufacture of vitamins in concentrated form has proved of real value to doctors in fighting nutritional diseases; but unless you are ill or convalescing so that your appetite is poor, or unless conditions make it impossible for you to get a variety of foods, your diet will give you all the vitamins you need. As a famous expert on nutrition said: "The

VITAMINS AND WHAT THEY DO FOR YOU

Vitamin	Chief Function	Foods Rich in Them
A	Helps growth Prevents night-blindness Helps skin and smooth, moist linings of nose and throat to stay in good condition	Fish oils Eggs Butter Carrots Green, leafy vegetables Apricots Milk
B^1 (Thiamin chloride)	Maintains proper functioning of nervous system Prevents "nervousness," loss of appetite	Meat Eggs Fish Beans Peanuts Whole grains
B^2 (Riboflavin)	Assists in the digestion of carbohydrate and fat Keeps tongue, lips, eyelids in good condition	Milk Eggs Whole grain cereals Green, leafy vegetables
Niacin	Prevents the development of pellagra, an ailment accompanied by a skin rash, weakness, and an intestinal disorder	Liver Fish Peaches Peanuts Whole grains Molasses
C (Ascorbic acid)	Helps "cement" the various body cells together Prevents the development of scurvy	Citrus fruits Tomatoes Berries Cabbage Potatoes Carrots
D (The sunshine vitamin)	Helps body to utilize calcium and phosphorus Helps build bones and teeth Prevents rickets	Vitamin enriched milk Vitamin D concentrates of fish, liver oils Egg yolks Fish

These vitamins are vital for good health; be sure you eat the foods containing them.

place to get your vitamins and your minerals and your proteins is in the market . . . not in the drug store."

As you can see by the chart opposite, large amounts of vitamins are present in the foods you eat. If you eat enough of the proper kinds of different foods, you won't have to take pills to get your vitamins.

What are the basic foods?

Does all this mean that you must take a scale and a nutrition chart with you to the dinner table? Certainly not, although it *is* a good idea to learn something about foods and a proper diet. Whether you think of food in terms of apples and sweet rolls and roast beef or in terms of proteins and carbohydrates, see to it that you get the following basic foods or their equivalents every day. If you do, you can be sure you are getting a diet that will give you a safe minimum of the "protective" foods:

One quart milk
4 to 6 ounces orange or grapefruit juice
4 to 6 ounces meat
1 egg
A "yellow" vegetable (such as squash or carrots)
A legume (such as peas or beans)
A potato
Whole grain or enriched bread, or cereal, at each meal
Butter or margarine

Remember that these foods fill your minimum needs; to best promote your growth and development, you'll need more.

Try checking yourself for a week on the chart on page 18. Perhaps your score will lack some check marks at the beginning of the week. You'll be surprised to discover that with a little ingenuity you can bring your score up to par and still concentrate on eating the foods you like best. You will need to eat a greater quantity of the items on the list, or to add other foods, to bring up the fuel value of your diet to the point that is right for you.

The energy value of food is measured in *calories*, or heat units. How many calories you need depends on your age, how active you are, and whether you want to gain or lose weight. Jack, who plays football, needs more calories than Jerry, whose leisure hours are spent in his workshop. Most girls between fourteen and twenty need from 2,500 to 3,000 calories, most boys from 3,000 to 4,000, for ordinary daily activity.

You can bring your diet up to the proper number of calories by eating greater quantities of those foods on the "basic" list, and by eating other additional foods.

EVERYDAY BASIC FOOD NEEDS

	Mon.	Tues.	Wed.	Thurs.	Fri	Sat.	Sun.
1 quart milk							
4-6 ounces orange or grapefruit juice							
4-6 ounces meat							
1 egg							
A yellow vegetable							
A legume							
A potato							
Whole grain or enriched bread or cereal, at each meal							
Butter or margarine							

These foods are basic for good health; check to see if you're getting them.

How to gain or lose weight

If you are not satisfied with your weight, if you want to gain or lose, you have probably been reading all this information on food with an eye to changing your diet.

Although there is no magic formula that will help you, your weight does depend chiefly upon the kind and amount of food you eat. In the absence of disease, the only other things that count are *how* you eat, how much energy you expend, and your hereditary characteristics. If you are really underweight and don't seem to be gaining, you had better see your doctor; you may have some illness which is interfering with your health, using up your energy, and keeping your weight down. However, don't decide that you are too fat or too thin just by comparing your weight with the "average" figures on some chart. You may have what is for you a normal and satisfactory weight. You can tell a lot just by looking at yourself, by comparing yourself with your parents and brothers and sisters. Even though you may be too thin now, if you are gaining gradually there certainly is nothing to worry about.

If you want to gain weight, here are some things you can do: 1) Eat slowly—by chewing thoroughly you will aid the digestion of carbohydrates. 2) Rest a short time before and after meals. When you are relaxed, your stomach receives and digests food better. 3) Eat more food at each meal, and have a snack at bedtime. 4) Eat foods which have a high caloric value, such as butter, cream soups, mayonnaise, gravy, bread. 5) Get plenty of sleep and enough exercise, but don't exercise to the point of excessive fatigue or you won't have a good appetite for your next meal.

If you are overweight, don't try to lose rapidly: a pound or two a week is plenty. Reduce the *amount* you eat, but eat *some of almost all foods*. Don't give up all milk or all potatoes, for instance. You need the vitamins and minerals they contain. You should reduce the amount of butter, gravy, ice cream, and bread you have been eating and fill up on leafy vegetables. Drink skim rather than whole milk; in that way you'll get all the good in milk except its fat. Get plenty of exercise, but don't let your whetted appetite make you eat more! If you are thinking about losing a lot of weight, see your doctor. It can be dangerous to plan such a reducing program without expert advice.

If you make the most of your knowledge about foods, you will have gone a long way toward making sure that you are growing and developing under the best possible circumstances.

Important as food is to your well-being, good food alone cannot assure you of good health. General fitness, which will be discussed in the next chapter, is also essential to a well-rounded health program.

IV

Physical fitness

PHYSICAL fitness is important to all of us.

Bob, whose ambition is to make the freshman football team this year, and Helen, who is just as anxious to qualify for the girls' swimming team, know they must be in good physical condition. However, fitness is just as essential to Pat, whose favorite activity is reading, or to Dick, who rebuilds motorcycles as a hobby. Physical fitness helps every one of these individuals grow and develop and enjoy life more fully.

To be in top-notch condition, to enjoy both work and play, means that—

1) All parts of your body are in good shape and capable of working efficiently.
2) You can work hard without becoming excessively tired, and can recover from fatigue quickly.
3) You are reasonably skilled in certain movements requiring co-ordination and strength; that is, good at some form of athletics.

These three kinds of fitness are called *medical* fitness, *functional* fitness, and *motor* fitness. To be really fit, you must rate high in each of them.

Medical fitness—a sound body

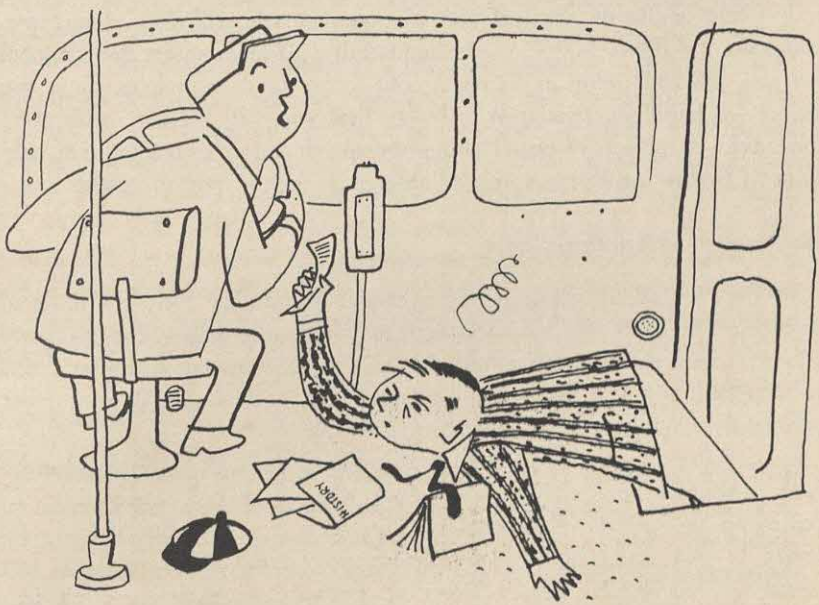
Because Bob's football coach and Helen's swimming instructor realize that medical fitness is the basis of good physical condition, they insist on thorough medical examinations for their team members. The school physician checks each student to make certain that heart and lungs are sound, that his blood is in good condition, that he is free of infections, that there are no hernias or bone defects.

A health examination will tell *you* whether you are medically fit. Once you have been assured that you are, you can then think about becoming *functionally* fit.

Functional fitness

Like all boys who go out for football, Bob will go through a rugged conditioning program before he even begins to think about scrimmage. You may wonder, as he does calisthenics in the September sun, how knee bends can ever help to make him a good left tackle. Bob's stint at calisthenics, like a boxer's road work, is carefully planned so that gradually he can do more strenuous work at a faster pace, without putting his body under too great a strain. He is getting himself into condition. Helen, too, must train. Her stroke and kick may be perfect, but if she is not able to do strenuous swimming and to recover quickly from fatigue, she won't do her best in a race. Helen and Bob are both training to become functionally fit.

By being functionally fit, you avoid straining yourself or doing any damage to your body. In other words, you insure yourself of working well within the limits which your body can stand. You don't tire as easily and you recover from your fatigue more quickly.



If something like a 100-yard run for a bus can tire you out, you aren't very fit.

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Some young people question the value of exercise. You may ask, "What is the use of being in top condition? I'm not going out for any team." You'll get the answer to that question the next time you run for a bus, change a tire, or spade the garden. If a 300-yard run tires you out, if you are puffing before you've gone very far on a strenuous job, you aren't very fit, no matter how medically sound you may be. When you are in good condition, not only can you do more difficult things with the least possible strain, but you will also be able to do lighter tasks almost effortlessly.

While it is not a good idea to get exhausted, it does make good sense to get enough exercise of the right sort *regularly*. You'll feel better, you'll eat better, you'll sleep better, and you'll have fun because you'll be able to do more things with less fatigue.

Motor fitness—master a sport

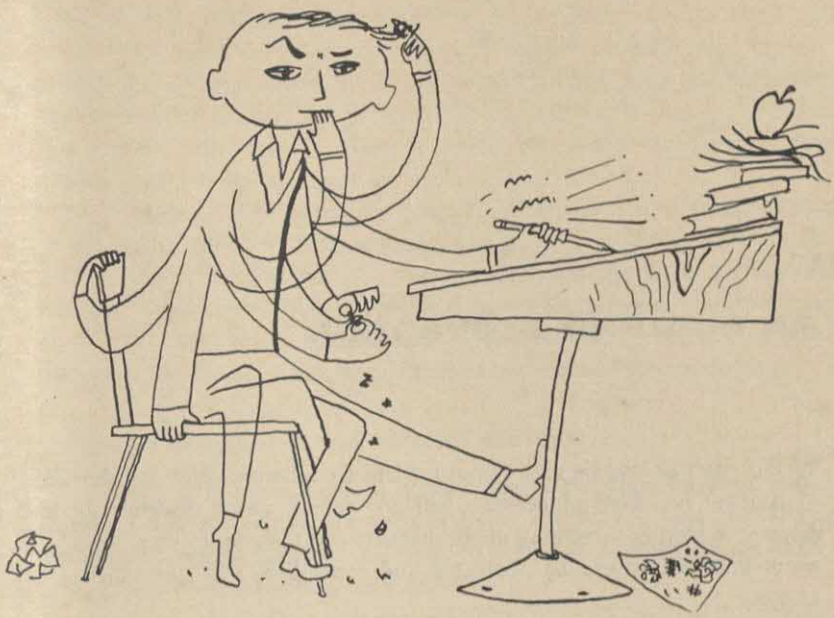
Helen and Bob are well on the way to developing the third kind of fitness, *motor* fitness. They are developing the strength and the coordination to become reasonably good at sports. Motor fitness goes hand in hand with functional fitness. If you don't acquire enough skill to enjoy participating in at least one sport or game, you won't pursue it to the point of getting and staying in condition.

What games or physical activities you pursue will depend on your interests and the facilities in your community. If team sports don't appeal to you, try badminton or bowling. Get to be good enough at some one sport—at handball, tennis, or golf—so that you will keep on with it as an adult. Your school coach and physical education instructor can help you in finding and developing an interest in some sport or game.

Rest, relaxation, and sleep

Rest is just as important as exercise. In a busy day, it's hard to remember to take time out to relax, but you'll work better and get more done if you'll do it. A few minutes' break in mid-morning and after lunch will refresh you and prove to be a time-saver, because you'll work more efficiently when you do go back to your tasks.

Try to find other opportunities to relax. You must know people who are constantly "on edge"—tense—even when they are supposed to be enjoying themselves. Eagerness and attention are fine, but if you will learn to relax your body while keeping your mind alert, you'll be less tired and accomplish more. Don't sit gripping your chair; don't participate *physically* with what is going on in your classes. It's your mind



People who are always tense and on edge accomplish less and get tired sooner.

and not your body that should be working. *Practice* relaxing and see how much less tired you get.

How much sleep do I need? is a common question. The answer isn't easy, because what is best for one person is not necessarily best for another. In your teens, nine or ten hours is probably what you need, but you really have to figure it out for yourself. If you have plenty of pep all day, are no more than reasonably tired when night comes, feel well, and are gaining weight, you are probably getting enough sleep. Remember that for your own best interests, the important thing is *not* to see how little sleep you can get by on, but to get as much sleep as you need in order to feel your best, to work efficiently, and to enjoy life to the utmost.

To sum up—

What you want to strive for is a well-rounded program. First be sure that you are medically fit; then improve both your "condition" and your motor skills. Balance these with plenty of rest. You'll feel better, you'll be promoting your best growth and development, you'll accomplish more, and you'll have more fun.

V

An ounce of prevention

YOU can't always be well. Even a perfectly balanced diet and the right amount and kind of exercise will not defend you completely against disease. Knowing something about diseases and their symptoms, especially about those which can be prevented and controlled, will strengthen your armor.

If, after reading this chapter, you find yourself feeling your forehead, taking your pulse, and reaching for the telephone to call the doctor, that's normal. Most of us develop, for the moment, whatever symptoms we are reading about, but this kind of worry should be only temporary. Use the information you gather to strike a happy balance between being overconfident and being a worry-wart. Keep your sense of humor.

How diseases are prevented

There are a few serious diseases that can be prevented. By taking some simple precautions, you can avoid illnesses which may in some cases be fatal or long lasting, and which are certainly painful.

Serums and *vaccines* are the main weapons against disease. They can prevent some diseases entirely, and they can control others.

Vaccines are made from weakened or dead bacteria which are just strong enough to stimulate a natural means of resistance in you. This natural resistance goes under the name of *antibodies*. They are just what they sound like: "bodies," or substances that attack the bacteria and protect your body. Vaccines do not *contain* antibodies; they contain the enemy, the killed bacteria that stimulate your body to develop a defense. Once your body has manufactured these antibodies, they remain on guard (for varying lengths of time) and make you immune to the disease.

A *serum* is different from a vaccine. It is made from the blood of an animal or man known to have a large supply of antibodies against a particular disease. When this serum is injected into you, you immediately receive antibodies which will ward off or combat that illness. You don't, as in the case of a vaccine, have to manufacture the antibodies; the serum gives them to you all ready to use.

Protection from a *vaccine* doesn't develop for a few weeks, but lasts a long time. Protection from a *serum* is immediate, but doesn't last long.

"Booster" injections are those which are given to increase and renew the immunity of an individual who was previously given vaccines.

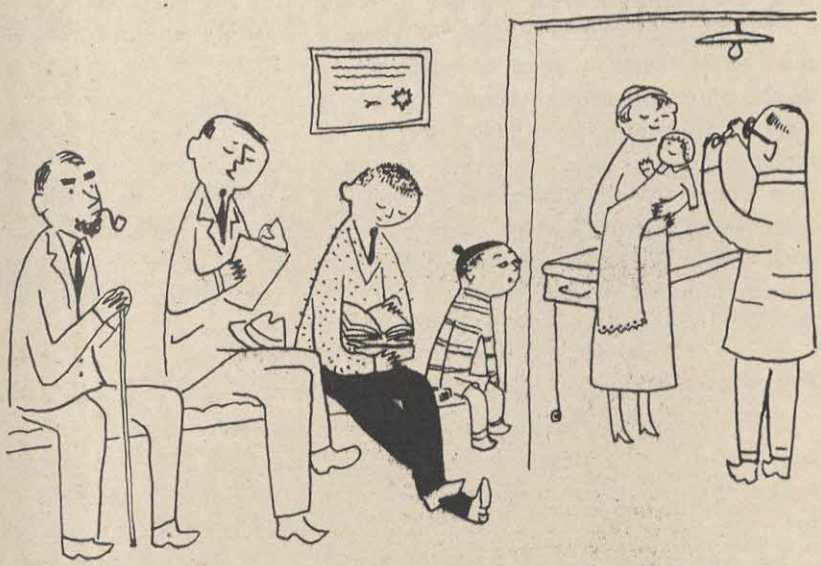
"Toxoids" are a special kind of vaccine. They are *not* related to serums; they contain no blood, and cannot cause "serum sickness."

Diseases that serums and vaccines prevent

There are a few diseases against which everyone ought to be protected. These diseases are serious; you should not take the slightest chance of having any one of them. The method of preventing each of them is simple, harmless, and effective.

Smallpox

Vaccination against smallpox is a simple, safe, and painless procedure. It is best to be vaccinated during the first year of your life, again



You should have a smallpox vaccination as an infant, and periodically thereafter.

at age five, and every five or ten years thereafter. If you have sufficient immunity so that your body can resist being infected by smallpox, only a very tiny spot will develop when you are revaccinated, but don't neglect to have your vaccination repeated just because you had it done several years ago and have a scar. Your first vaccination won't protect you forever. It's far better to repeat it and find you are still immune than to take a chance.

Diphtheria

You should be immunized against diphtheria during your first year. and be given a skin test at ages five and twelve to determine whether you are still immune. If your immunity becomes too low to protect you, and it probably will after a few years, you need to renew your protection.

It is particularly important for those of you who were immunized against diphtheria in infancy or early childhood, and who are now in your teens, to be sure that you are still immune. It only takes a skin test to find out.

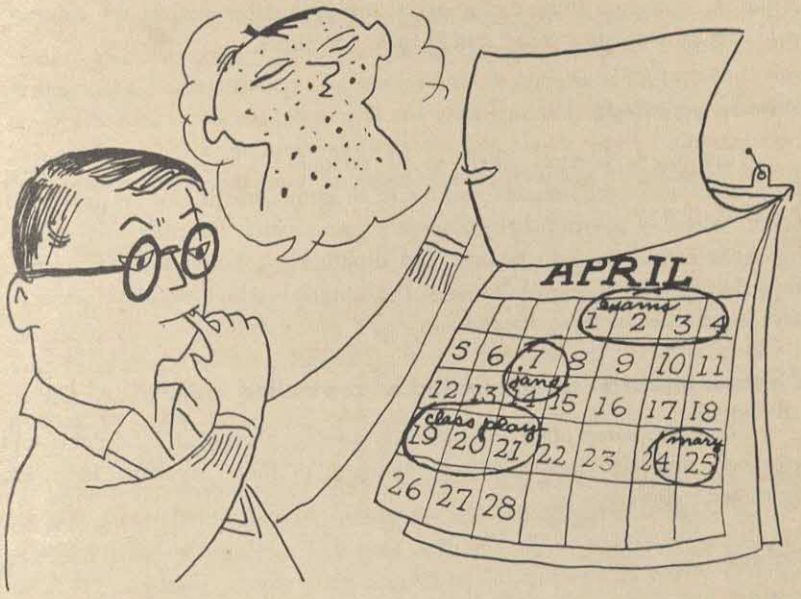
Tetanus

The methods that have been developed to protect people from tetanus—lockjaw—have been improved tremendously in the past few years, and it is important that you take advantage of them.

You should be immunized with tetanus toxoid—a vaccine—during your first year, and have a "booster" injection every five years, or at least until you are old enough so that your chances of getting puncture wounds and cuts in sports or other activities are very slight. If you receive a jagged cut or a puncture wound (particularly if you have been around a stable or barnyard where tetanus germs are likely to be present), you should have a "booster" injection. In the event of injury, if you have been immunized with tetanus toxoid, you will never need to be given the horse serum injections which often produce unpleasant reactions. It is a good idea to have a note on your identification card to the effect that you have been immunized with tetanus toxoid. If you are injured, it will help the doctor to have this information.

Typhoid fever

If you are going to camp out or travel in regions where you can't be sure that the water is safe to drink, it's a good idea to be immunized against typhoid fever. The initial dose of this vaccine will protect you for a year. If you live in an area where you are likely to be exposed to this disease, you should have a single "booster" dose of vaccine every year.



Measles may be inconvenient to have, but it's best not to try to prevent it.

Measles

Ordinarily, it isn't wise to try to prevent measles; you'd better have it and get it over with. However, if you're just recovering from a serious illness, your doctor may think it a poor time for you to have this disease, and he may suggest giving you a serum injection which will probably protect you for about a month.

Sometimes a smaller dose of this serum is given in an effort to make an attack of measles milder. In general, it is much better to have this mild form of measles, which will protect you forever from another attack, than to try to prevent it completely.

Influenza

The "flu" is a common disease and although it is usually not very serious, there is now a vaccine available that does protect you against some of the many types of influenza. Unfortunately, it offers no protection against many other types, such as the severe influenza which swept the world in 1918. In addition, its effect seems to last no more than a year or so. Doctors do not agree about the use of this vaccine. Some feel that there may be value in having an occasional mild attack of influenza, because it raises your resistance. Others favor using the vaccine. There

is no evidence that this vaccine gives any protection against the common cold, or against other nose and throat infections.

Whooping cough

This illness is most likely to be serious for very young children. It is mentioned here because you ought to know that it can be prevented, or considerably controlled, by the use of a vaccine. Recently this vaccine has been combined with tetanus and diphtheria toxoids so that a single injection contains the initial dose of the materials which develop immunity against all three of these diseases.

Diseases that can be prevented or controlled

There are some other diseases that can be prevented by serums and vaccines, and also controlled or modified in their severity. They are discussed below.

Rabies

The best way to control rabies, which is a very serious disease, is to treat every dog with vaccine so that no dog will develop it. Unfortunately, many dogs are not given this protection, so it is essential, if

The best way to control rabies is to make sure no dog will develop the disease.

you are bitten by a dog, that you go to your physician at once so that he can clean and treat your wound. Your physician or your Public Health Officer will tell you whether you should have a vaccine to protect you from rabies. Be sure to report the dog to the local Board of Health immediately. Not all dogs that bite people have rabies, but don't take a chance. Leave the decision as to whether you should have treatment to your physician.

Tuberculosis

Only in the past few years has vaccination against tuberculosis been practiced to any great extent. Even now its use is carefully controlled. This vaccine should be given only after a skin test has been made, and it should be administered only by those who are specially trained in its use. It is mentioned here because it is one of the new preventive measures that you should know about.

There are several other established methods by which tuberculosis can be controlled. This control is extremely important, particularly when you consider that *tuberculosis has been second only to accidents as a cause of death in young people.* The control of tuberculosis is partly a public health problem, to be dealt with by public agencies. It has been their responsibility to develop adequate facilities for diagnosing and treating the disease in its early form, to make widespread efforts to find people who have active tuberculosis by the use of chest X-rays, to eliminate tuberculosis in dairy herds, and to see that milk and its products are pasteurized, and meats inspected.

What you can do is to see that your lungs are X-rayed regularly, and that you drink only pasteurized milk and eat only inspected meat.

The early signs of tuberculosis are a persistent cough, loss of weight, and a decrease in pep and vitality. If you have these symptoms, see your doctor. The early treatment of tuberculsosis is an important factor in its control.

Don't assume, because someone in your family has tuberculosis, that you will have it, too. It is *not* inherited, although if tuberculosis is present in your family, you have more of an opportunity to contract it. Let your doctor decide whether you should have your lungs X-rayed oftener than the average person.

Other diseases that can be controlled

The following diseases can be controlled. It's important to know about them because early discovery and treatment are vital in reducing their severity.

Appendicitis

The appendix is about four inches long, and is attached to the large intestine. Although it seems to serve no useful purpose, it can become infected, and often makes trouble, particularly for young people. "Stomach-ache," a pain which usually starts in the upper abdomen, is the earliest and commonest sign of appendicitis. Shortly after the pain starts, you may feel nauseated and you may vomit. You probably won't want to eat. There is usually little or no fever.

If you have these symptoms, you probably won't confuse appendicitis with an ordinary stomach-ache. Here are a few "do's and don't's." 1) Do not take a laxative or enema. If you have appendicitis, either of these will seriously spread the infection. They won't relieve anything except constipation, and that will cure itself without their help. 2) If you aren't sure of what the trouble is, call your doctor. It is often difficult to be sure whether the appendix is involved or not. Don't trust your judgment. Your doctor's judgment and experience are much better than yours. However, don't call your doctor the minute you have a stomach-ache—it may go away in an hour or so—but if it persists for a few hours, call him immediately. Don't wait twenty-four hours. 3) Don't eat anything; don't drink anything except a little water. Don't use an ice bag or hot water bottle. They may lull you into a false sense of security by making you think you're better. Lie down and wait until your doctor comes.

You can't prevent appendicitis but you can keep it from becoming serious. An operation for the removal of the appendix is a simple and very safe one when it is done early, but when laxatives and home remedies have been used, or when the doctor is not called in until the next day, an attack of appendicitis *can* be dangerous.

Diabetes

When an individual has diabetes, his body loses the ability to utilize the sugar which many foods furnish. As a result the sugar content of the blood increases to such an extent that some of it is excreted in the urine, and such symptoms as thirstiness, loss of weight, constant hunger, and weakness develop.

Diabetes is more common after middle age than it is in younger people, but some children have it. It tends to run in families, and if anyone in your family has diabetes you should: 1) avoid becoming overweight, and 2) have your urine tested at least once a year to be sure it is free of sugar. It is important to remember that when diabetes is discovered early it is much less difficult to control.

The venereal diseases

Syphilis and gonorrhea are rarely acquired except through sexual intercourse, but it is wise to avoid contact with articles—such as drinking glasses, cups, towels, toilet seats, and so on—that may have been contaminated by an infected person.

Public agencies have been doing a great deal to control these diseases through: 1) early diagnosis and treatment; 2) discovery of the source of the infection and the isolation and treatment of the person spreading the disease; 3) education in sexual hygiene; 4) elimination of "quack" cures and self-medication which interfere with prompt diagnosis and effective treatment by qualified persons; and 5) the use of the Wasserman "blood test" in all routine medical examinations, so that unsuspected cases of syphilis may be discovered.

Poliomyelitis

At the mention of "polio," you probably have a mental picture of someone severely crippled. While polio, or infantile paralysis, is a disease no one wants to have, the fear that people have of it is neither justified nor helpful. It is a fact that more than half the people who have had polio recover completely and have no after-effects. This is not a disease to be careless about, but you can help, should an epidemic hit your com-

In the event of a polio epidemic *don't* rush to your doctor; *do* take precautions.

munity, by being calm and going about your business as usual. Gossip and scare stories breed fear and anxiety, which in turn do no one any good.

No sure way to prevent polio is known. It is thought that the virus which causes this disease may be caught from contact with persons who have polio, from utensils which they have touched, from water that contains infected sewage, or from food to which flies have carried the virus. To be on the safe side during an epidemic: 1) Avoid crowds; 2) Do not swim in water which has not specifically been declared safe by your Health Department; 3) Avoid fatigue and chilling, since these may make an attack more severe; 4) Get rid of flies and keep all food well covered; 5) Be sure to wash your hands before eating.

The early symptoms of polio are headache, nausea, fever, and muscle soreness. Sometimes these don't seem very serious, but if you're not *sure* that your symptoms are harmless, call your doctor. Do the safe thing.

Cancer

Cancer does not occur frequently in young people, but it develops often enough so that it should be given consideration. There are two important facts to remember about cancer: first, that early treatment with surgery, X-ray, or radium offers good chances for recovery; and secondly, that prompt, early diagnosis is all-important. There is no better reason for having a regular medical examination than that a growth or cancer may be detected before it has had a chance to develop very far.

The common cold

There is nothing more annoying than a cold. On the average, people have two a year. Some people, of course, are much more susceptible than others. Colds aren't serious in themselves, if you take a few precautions, but they do keep away from work or school a few days a year.

Whenever many different ways of preventing or treating an ailment are available, it is probable that no one of them is very effective. This holds true of remedies for colds. Vitamins, vaccines, and pills do little if any good in *preventing* them, and pills, sprays, or nose drops usually are of little help in *curing them.* However, your general physical condition does have something to do with the matter. If your resistance is pretty good, if you are not overtired, you are less likely to catch a cold and more likely to get over it faster. Until we know more about how to prevent colds, the best advice you can follow is to avoid getting overtired or chilled, to keep out of crowds when colds are going around, and to try to keep in good general condition.

If you do get a cold, stay in bed for the first day or two at least if you possibly can. You will get well quicker if you do, and you will lessen the danger of complicating illnesses, such as sinus and middle ear infections. You won't be very useful anyway, and you won't give your cold to as many other people. Drinking an excessive amount of water, taking a laxative, "sweating it out," using nose drops, gargling with antiseptics, taking pills (including the sulfa drugs)—all do little or no good. However, if your nose gets so stuffed up that you just can't breathe through it, the occasional use of some mild nose drops will give you temporary relief. The best thing to do is to go to bed, keep warm, get a good book to read, and avoid blowing your nose too hard. If your cold hangs on for more than a few days, if you have much fever, or develop a cough, earache, or pain over your nasal sinuses, call your doctor. Colds aren't serious, but the infections which develop from them can be.

It's up to you

There are a great many other diseases. There also is continual progress being made in combating them. To date, however, the ones we have just discussed are those about which there is the most information and for which we have the most specific means of prevention and control. They are therefore the ones you should know most about. Put these facts to use. Take that ounce of prevention so you won't need the pound of cure.

The best cure for a cold: go to bed, keep warm, don't blow your nose too hard.

VI

Safe and sound

IS one of your football players hobbling around with an autographed plaster cast? Has one of your classmates been the victim of an automobile accident? Is your younger brother in the hospital because he tripped and fell down that dark stairway?

Statistics show that more young people from the ages of one to twenty-five die from accidents than from any other cause. From the ages of fifteen to twenty, more young people die from accidents than from heart disease, appendicitis, and tuberculosis combined. In addition to those who die, there are countless thousands who are injured, some of them permanently.

This is a serious health problem. Fortunately, it is one that you can attack directly. By knowing some of the facts about accidents, *you* can take steps to see that they don't happen to you, your family, your neighbors.

Merrily we roll along

If you have been taking a tolerant, oh-well-father's-getting-older-and-more-nervous attitude toward warnings about your driving, take time to think about these figures. In a recent year, there were over 30,000 deaths due to automobile accidents. In addition to those who were killed outright, over 100,000 persons suffered some permanent disability, and over a million had some sort of injury as a result of these accidents. You ought to know the unpleasant fact that sixteen-year-olds have *nine times* as many auto accidents, in proportion to their numbers, as do people of forty-five to fifty.

Why should this be true, especially since young people are generally supposed to be able to react much faster physically in emergency situations than older people? The fact is that too many teen-agers are not as careful

The reckless driver who speeds and crashes lights is heading for an accident.

drivers as they should be. Many of them think it's clever to be reckless, and that recklessness is a large factor in auto accidents. You may wonder just what it is that puts a label of "reckless" on you. Here are some examples of what *not* to do if you want to have a "safety" reputation:

Try to "get back" at any driver who cuts in on you
Try to see how fast you can go
Steal the right of way at intersections
Drive after drinking
Crash light signals

These are the things that kill.

What can you do about it? There are many *safe* ways to show your cleverness at the wheel. Here are some specific steps you can take to make driving safer:

1. Become an expert driver, and take pride in the fact that you don't have accidents. The good driver is the person who gets to his destination and back safely day after day, not the one who breaks the speed record one day and crashes up the next.

2. Urge driver-training classes in your school if they are not already offered.

3. See to it that the car you drive is in good mechanical condition.

4. Realize that the expert, experienced driver keeps his temper and doesn't bother to compete with or "put in his place" any show-off who tries to pass him.

5. Get interested adults—your school counselor, a sympathetic policeman, a Scout leader—to work with you in mapping out a safety program styled especially for your age group. Such a program will pay off in reduced accident rates. Towns that already have these programs report a reduction in accident rates by as much as one-half.

Home, sweet home

Startling as the figures are on automobile accidents, the home is the scene of more accidents, and a larger number of fatal ones. Surprisingly, falls account for at least half of all accidents in the home. You can help reduce this and other hazards in your home by taking the following precautions:

1. See that stairways are well lighted.
2. Rugs should be fixed so that they won't skid.
3. Poisons should not be left around unmarked, and never within the reach of children.
4. Electric fixtures should not be placed where they can be touched with wet hands.
5. Keep tools, toys, and shoes off the floor and off stairways where you can easily stumble over them.
6. Use care in disposing of fluorescent tubes: avoid the fine glass particles into which these tubes shatter and the vapor which escapes from them.

Beware of water

Drowning adds some 7,000 persons to the accident death toll every year in the United States. Here are some of the do's and don'ts that will protect you from these accidents:

DO learn to swim well.
DON'T show off when swimming.
DO look before you dive; it may be more shallow than you think.
DON'T go swimming unless your doctor says you and your heart are fit.
DON'T go swimming alone.
DO hang on to your boat or canoe if it turns over; DON'T leave it.
DO keep off ice unless you're sure it's safe.
DON'T go on ice if you're alone.
DO learn how to handle boats and canoes properly.
DO learn life saving and artificial respiration methods.

Give yourself a sporting chance

How many games in which you took part, or at which you were a spectator, were marred by someone's being injured? There are bound to be accidents in athletic games, but there won't be so many if the athletes take a few simple precautions. Check yourself on these questions, whether you are a member of a school team or just take part in sports on your own.

Do you use all available protective gear, such as shatterproof lenses and well-fitting football pads and helmets?

Do you compete only when you are in good general physical condition?

Do you have some skill in the game in which you compete?

Do you have the courage to get out of a game if you have suffered a slight injury, or do you play "martyr"?

Do you keep in mind that the best athletes use skill rather than brute force?

Fire!

Fire is a big hazard in the United States. In a recent year, 300,000 homes were destroyed by fire in this country and 2,000 children died in those fires.

For safety in sports, be sure to take precautions, such as wearing protective gear.

What were the causes? Inflammable materials, such as excelsior, waste paper, and oily rags left in attics and basements; electric wires that were badly insulated; and lack of information regarding what to do in case of fire.

There are some precautions you can take in this matter:

1. Keep your basement and attic clean.
2. Don't use a penny for a fuse; it's dangerous.
3. Watch out for electric wires without insulation under rugs or over hooks.
4. Know the location of your nearest fire alarm.
5. Know how to leave your room in case of fire. Feel your bedroom door, and if it's hot don't open it. If your door is closed you can open your window; it won't cause a draft and spread the fire. Know how to get out through your window.

Accidentally—on purpose

Most of us jokingly confess at one time or another to doing something "accidentally on purpose." Experts agree that we were probably speaking truer words than we knew, that at least some accidents happen because we unconsciously want them to. You may be the "Calamity Jane" of your family, the one in your crowd who always falls in the lake, sprains his ankle, and overturns the toboggan. If you are, maybe it's because you really want to be able to wail, "Something always happens to me!"—even though you're not conscious of this desire. Often people who have frequent and sometimes dangerous accidents have certain problems or conflicts which they are unable to face. Experts have made studies of such people and they found that psychological factors play a large part in many cases.

If you are "accident prone," you'd better have a conference with yourself and try to find out what is the matter. Better still, talk the matter over with your counselor or school adviser. He may be able to help you or tell you who can straighten you out.

Famous last words

Don't let your famous last words be: "I didn't realize" or "I didn't mean to do it." Equip yourself with facts, with skills, with self-confidence, so that you can rule out accidents as a threat to your health picture.

VII

Common health questions

ALL of us worry about ourselves on occasion, sometimes for good reasons, but often simply because we don't have the necessary information. You may let relatively small health problems—or the worry about them—plague you until you can't enjoy the good health you really *do* have. A little more information about some of these problems may set your mind at rest or help you decide to see your doctor.

Headache

Headache is one of the commonest ailments. The occasional headache which probably is due to fatigue, hunger, or indigestion shouldn't concern you at all. It will disappear in a short time, without any medical attention or pills. On the other hand, if your headache is severe, or if you have frequently recurring headaches, that's another matter. They may be due to eyestrain, infection in your nasal sinuses, worry, or migraine. To decide the cause is the doctor's job—don't dose yourself with laxatives, pain killers, and "headache remedies." You'll just be wasting your time and money. If you have persistent headaches, find out their cause. Remember that your emotions—worry, fear, or a feeling of depression—can give you headaches. If you have something on your mind, try to analyze the real trouble and do something about it. You may find your headaches suddenly disappearing.

Cleanliness

Cleanliness and good grooming can do a lot to help you avoid minor health problems and look your best. Briefly, here are some of the "musts" in this area.

Take care of your skin. Wash your face thoroughly with mild soap at least once a day, twice if your skin tends to be oily.

Most people's hair needs no more than daily brushing and a weekly shampoo. If your hair is particularly dry or oily, you may vary the length of time between shampoos. If your scalp is very oily, if your hair is falling out, or if you have a great deal of dandruff, consult your doctor. He can give you some suggestions as to what to do.

People who perspire freely should be careful to avoid excessive body odor. The best ways of doing this are to bathe frequently and to use a deodorant to take the odor from the perspiration.

It's important for good health and good grooming to bathe frequently.

Acne

During adolescence, almost no one escapes the "broken out" period, when a blotchy face keeps you from looking your best. Acne can be the most persistent and annoying of skin ailments. It almost always clears up in time, but it's not always easy to say exactly when that time will be. Acne is closely related to the growing-up process, and makes its appearance during those years when the glandular system has not yet settled down to the regular functions of maturity. It usually occurs between the ages of twelve and twenty-five. Acne is not caused or cured by sexual habits, nor can it be helped by pills or tonics. The best things to do are: 1) Don't let it bother you too much; after all, you're not alone in your affliction. 2) Keep your face clean and don't pick at it. 3) Get as much sunlight as you can. 4) Avoid chocolate, nuts, and too much candy, fat, and pastry. 5) Ask your doctor to prescribe a lotion for your skin if it is too oily, and ask him for other suggestions on how to treat your skin.

Athlete's foot

Athlete's foot is a fungus infection which you are most apt to pick up from a floor where many people walk barefoot, such as in locker rooms

and swimming pools. The fungus grows best in moist places, so in addition to washing well, dry your feet carefully, particularly between the toes. Don't "over-treat" by using strong acids; good, effective powders are available. Don't forget that other bacteria can enter your skin through the cracks which often accompany athlete's foot. If your toes get red and swollen and tender, be sure to find out whether a "secondary infection," which will need special and prompt treatment, has developed.

Ingrown toenails

Ingrown toenails are painful and incapacitating. They can be avoided if you will always cut your toenails straight across. If you cut around the corners, you are very likely to get into trouble.

Constipation

If you eat a variety of foods, get a reasonable amount of exercise, drink plenty of water, and establish a regular time for elimination, you will never be constipated. Don't worry about how often your bowels move, because this worrying is the most frequent cause of constipation. The more you think and worry about it, the worse your condition will get. Don't take a cathartic and risk throwing the whole automatic mechanism out of gear. The idea that your bowels should move once or twice a day, or every other day, is out of date. There isn't any "right" schedule, except *your own schedule.* If you are having trouble, drink three glasses of water before breakfast. Otherwise, just follow the simple rules given above and you won't have trouble.

Backache

Backache is a symptom you shouldn't ignore. If you have "strained" your back, if your spine has "slipped out," if your back "tires easily," don't just apply heat or have it massaged and wait for it to happen again. Find out the *cause.* You may have some weakness that could be corrected or some disorder that needs attention. Some disorders of the spine are fairly common in adolescence. If you have had persistent pain in your back you probably should have X-rays taken. If your doctor tells you that no condition which would be aggravated by exercise is present, you will probably be helped by exercises that strengthen the muscles supporting your back. Let your doctor decide for you. But don't go on having backaches when you can take steps to eliminate them.

Menstruation

Some girls do a lot of worrying about menstruation, and most of it is needless. They wonder especially why their cycle is different from the twenty-eight days they may have been told is "normal." The fact is that a cycle as short as twenty-five days or as long as thirty days is still normal. Even greater variations are probably not significant. This is simply another way in which one person differs from another. Furthermore, menstruation is often quite irregular for the first two or three years. The body seems to need time to adjust to its new function. Irregularity may also be a result of such circumstances as emotional upset, extremes of temperature, or change of climate.

Women used to believe that during the menstrual period they should be as inactive as possible. Doctors know now that this isn't necessary or even healthful. Modern girls who lead an active life and get the proper food and rest find that they have little or no pain during menstruation. The general rule is: Avoid overwork, chills, extreme changes of temperature, nervous tension, or too much exertion. Otherwise, carry on as usual. Make a special point of getting your daily bath during the menstrual period to insure comfort and cleanliness.

If a girl has continued pain or severe cramps, she should see a doctor. There may be some organic defect that he can remedy.

Alcohol

Whether or not "to drink" is a question that faces many young people and often presents a real problem. There are many religious, moral, and social disagreements about this question, and different groups take different sides. No one answer has been found that will suit everyone, but the use of alcohol and its effect on your health is a matter about which you should have information, and not prejudice.

The facts are these. Alcohol is *not* a stimulant; it is a depressant. In sufficient amounts, it depresses the higher brain centers and cancels their restraining and inhibiting influences. It produces drowsiness and reduces coordination, judgment, and the speed with which you react. In other words, it is of no possible benefit to your general well-being, and it can be of harm. In addition to any physical disturbances it may cause, there is a definite relationship between alcohol and sex delinquency, and alcohol and automobile accidents.

Before you make up your mind about how you're going to face this problem, be sure you know all the facts about alcohol and the possible consequences of drinking.

Tobacco

Whatever your decision on smoking, don't get the chain-smoking habit.

Tobacco has been both praised and cursed for many years—you must have heard many of the arguments for and against smoking. Technically speaking, nicotine has certain characteristics of a poison. Small amounts of *concentrated* nicotine can be fatal, and dizziness, nausea, and weakness can result from smoking. However, the fact of the matter seems to be that there are considerable differences among individuals in their susceptibility to nicotine. Taken in ordinary amounts, it has little effect on many people, while on others its effect is considerable. Whether you'll smoke or not will probably depend on how much pleasure and relaxation you get out of it. The best advice you can get is: 1) Put off smoking as long as you can. 2) Don't smoke if you are out for athletics—it *does* impair your efficiency. 3) Smoke in moderation; don't get the chain-smoking habit. 4) Avoid smoking before meals—it *does* decrease your appetite.

If you go on worrying—get help

If you feel that your health problems are more serious, that you need some medical help, by all means see your doctor. He is anxious to help you, and he is especially anxious that you come to him *before* anything serious develops, before you have worried yourself—perhaps needlessly—to the point where you really are ill.

VIII

In illness and in health

YOU are the head of a team organized to protect your health. Your family doctor is second-in-command, and there are others on the team, some you may not even know about. They are all concerned with your health, and although they stand ready to help you when you're ill, they are particularly interested in *preventing* illness, in keeping you in good physical condition.

You are the boss when it comes to preventing illness, and your family doctor is standing by ready to cooperate. He can't do his job, though, unless you give him the opportunity. The best use you can make of your doctor is *before* you get sick, before the aches and pains start.

The way to do this is through a health examination. The health examination your doctor gives you can be the proverbial "stitch in time" that will save you a great deal of pain or difficulty in the future. By discovering any deficiencies or by making minor adjustments now, ailments which might become more serious later on can be caught and treated at the start.

How often you should have a health examination depends partly on how often you can have a good one. The ideal thing is to have a thorough examination every year. If this is impossible, it's better to have a *complete* examination every three years than an inadequate or hasty one every year.

What a health examination can reveal

You should not skip a health examination just because you *feel* healthy. You may have something wrong which has not been obvious to you. Even though you are well, there may be something you could and should do to improve your health. Here are some of the points on which your doctor will concentrate his examination.

Your weight, height, and physical maturity. If you weigh too much or are not growing properly you should know it and, if possible, do something about it.

Eyes, ears, nose and throat. You may not notice any difficulty in these areas, but very slight abnormalities are common and should be corrected, if you want to operate at top efficiency. A series of sore throats or sinus infections may be robbing you of energy and paving the way for more serious trouble. Impaired hearing can be a real source of difficulty to you. If your eyes or ears need attention, you should know about it and have some corrective measures taken. Make it a particular point to have your vision checked carefully at regular intervals.

Heart. Unless you were born with a defect in your heart or have had rheumatic fever, the chances are that your heart is in good condition, but it ought to be examined and you should know whether it's all right for you to take part in strenuous activities.

Lungs. Have your lungs X-rayed to detect possible signs of tuberculosis. There probably won't be anything wrong, but if there is, you should know it early. If your community offers free chest X-rays through mobile units, take advantage of this opportunity offered you.

Hernias, and variations in the development or condition of the sexual organs. These usually can be remedied. Don't neglect them.

Postural defects and abnormalities of the bones and joints. These should be looked for; they can be corrected.

Skin ailments. Such ailments as acne, impetigo, and scabies should be given treatment.

Condition of the blood. It's a good idea to have a blood count as part of your examination. You can't tell whether or not you're anemic or have some blood disorder just by looking to see if you're "pale." Most "pale" people have a normal blood count.

Possibility of sugar in the urine. It is uncommon to find sugar in the urine of young people, but because it is so desirable to detect diabetes early, your doctor will always check for it.

After a health examination, be sure to have anything remedied which needs attention. There is no use in having a hernia or defective hearing pointed out to you only to ignore it. *If something is wrong, get it fixed.*

During your health examination your doctor does not just say, "Let me see your throat"; he also asks, "How are you?" and "Is everything going all right?" "Is anything bothering you?" This is not the time to be shy. If you have something on your mind, even though it may seem trivial or

foolish or embarrassing—get it answered. This is your chance to have your worries, as well as your ailments, given attention.

Your teeth

Poor teeth impair your health and can in time become a real social liability as well. Your dentist is the man who can help you keep them in good condition. See him at least every six months, and take his advice about keeping your teeth clean and preventing the development of cavities.

Ask him also about your occlusion, your "bite." If your teeth do not close on each other properly they may wear down quickly and you may develop other dental troubles. Teeth "straightening" isn't just a luxury, done to improve your appearance, although that *can* be a good reason for having it done. Find out whether *your* teeth need straightening. The cost may not be excessive—and may in the long run save your teeth and save you money as well. If you make your visits to the dentist frequent, you will save yourself both pain and expense.

The specialists

Your doctor may at some time send you to one of the various kinds of specialists whose special equipment or skills you may need. Such men have had extensive training beyond their degree in medicine and can be especially helpful to you.

If you don't know what doctor to go to, consult the medical directory or the directory of specialists in your local library, or ask your local hospital for advice.

Health is a public concern

Up to this point, we have spoken of your health as though it were your own private concern—yours and your doctor's—but you don't live alone on a desert island. Regardless of how careful and how healthy you are, if you go to a movie and sit next to someone who is a carrier of some germ, you may get it, or you may be the one to give it.

Since your health, then, is *everyone's* health, and vice versa, it becomes a matter of public concern.

Your school probably helps to safeguard public health by having a physician and a school nurse. If a school does not have full-time professional people, usually a doctor and nurse assign some of their time to student care.

Members of your school health department see to it that during your school career you are introduced to modern health principles. They are interested in the sanitation of your buildings, in the control of contagious

diseases, and in seeing that the school program meets the requirements of good hygiene. They may see to it that you get a medical examination and that any physical defects are corrected. They also supervise your health education program.

The need for government regulation

The problems of health protection are multiplied by the fact that we no longer live in relatively isolated groups. When towns were very small and there was little visiting of one group with another, health protection was an individual or a family problem. Today, we can no longer take full care or responsibility for ourselves.

Take, for example, "food poisoning," which doctors usually call *acute gastroenteritis*. You have probably had it at one time or another—it starts suddenly and violently with nausea, vomiting, and diarrhea. People usually think it's caused by some food they've eaten. Actually, the food itself only occasionally causes the trouble. It's usually the bacteria that have been introduced into the food during its preparation or handling that make you sick. No amount of cleanliness on your part can protect you from gastroenteritis if the food you eat has been contaminated by persons who carry these bacteria. You can see why the need for public health supervision of restaurants is so important!

Health problems have increased since people no longer live in isolated groups.

Mushroom poisoning, shellfish poisoning, and botulism are true "food poisonings." Avoid this sort of trouble by not eating wild mushrooms unless you are an expert in identifying them, and by not eating shellfish if people in your town seem to be made ill by this sort of food during certain times of the year. Avoid botulism by not eating home-canned foods unless they have been thoroughly cooked. Pork should always be thoroughly cooked so that there will be no chance of your being infected with the parasite that causes trichinosis. Public health authorities are interested in controlling and preventing these diseases, too.

Nor are these the only diseases whose control depends on government supervision. Poluted water spreads typhoid fever. Uninspected dairy herds and unpasteurized milk can spread bovine tuberculosis and undulant fever. Only public agencies have the authority and the means to enforce essential sanitation measures.

Local, state, and federal health services

If you live in a community of any size your local Board of Health probably performs many of the duties mentioned above. A communicable disease control program, the supervision of milk, water, and meat supplies, the inspection of barber shops and restaurants, child health and maternity clinics, a diagnostic laboratory service, and the collection of vital statistics may be among its activities. The state organization backs up the local program by providing services which are lacking, helps to maintain high standards, and offers extra aid when statewide epidemics threaten.

The Constitution gives the national government power to "provide for . . . the general Welfare of the United States." By this right, many federal health services have been developed. The Public Health Service, the Children's Bureau, the Food and Drug Administration, and the Office of Education are among the agencies that help to guard your health. One of their chief duties is to study and control the spread of disease from one nation or from one state to another. They also conduct research on public health problems and provide aid in the form of temporary funds or trained personnel to state departments.

Finally

Your health is everybody's business. Medical research is continually discovering new preventions and cures; physicians are concerned with helping you; the government works to protect you. But the main job is yours. *It's up to you* to know as much as you can about your health and to act on your information as effectively as possible. Good health is an invaluable asset—it makes for more enjoyable and useful lives.

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For more information . . .

To supplement the information in this booklet, ask your counselor or librarian about some of the following materials. They are available at your school or public library.

Common Ailments of Man. Edited by Morris Fishbein, M.D. New York: Garden City Publishing Co., 1945. This book discusses symptoms, causes, and cures of some of the ailments almost everyone is bothered with at times, such as colds, backaches, headaches, allergies, anemia, high and low blood pressure, athlete's foot, and constipation.

Diehl, Harold S. **Healthful Living.** New York: McGraw-Hill Book Co., 1949. An authoritative and common sense book which will give you much more detailed information about the topics discussed in this booklet. It is the best single source of information to which you can turn.

Emerson, William R. P. **Health for the Having.** New York: Macmillan, 1944. Many excellent suggestions about diet, rest, exercise, and gaining weight.

Kiphuth, Robert J. H. **How to Be Fit.** New Haven: Yale University Press, 1942. You will find good advice by the Director of Athletics at Yale University and coach of the United States Olympic Swimming Team on how to improve your strength, coordination, and endurance, together with many photographs of effective exercises.

Kirkendall, Lester A. **Understanding Sex.** Chicago: Science Research Associates, 1947. Written for teen-agers, this booklet discusses the basic facts of body functions and reproduction, the importance of attitudes, consequences of various types of behavior, and factors leading to a happy marriage. Very frank and helpful information.

Lawrence, Herbert. **The Skin Problem Facing Young Men and Women.** Timely Publications, 1949. An easy-to-understand and thorough discussion of acne by a skin specialist.

Menninger, William C. **Understanding Yourself.** Chicago: Science Research Associates, 1948. A discussion of your emotions, how you are made psychologically, and why you behave as you do. It tells how to keep well emotionally, and what to do if things worry you.

Smith, Geddes. **Plague on Us.** New York: The Commonwealth Fund, 1941. A lively but authoritative book which gives many facts and theories about contagious diseases. Anyone interested in what has been done and what there remains to do in the conquest of disease will find this material stimulating.

Sportsmanlike Driving. 2nd ed. Washington, D.C.: American Automobile Assn., 1948. A thorough discussion of driving, drivers, automobiles, and traffic laws.

Stevens, Marvin A., and Phelps, Winthrop M. **The Control of Football Injuries.** New York: A. S. Barnes and Co., 1933. Practical advice on the control of football injuries, and photographs showing how they occur in games.

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